

|   | Type | L # | Hits | Search Text  | DBs  | Time Stamp          |
|---|------|-----|------|--|--|---------------------|
| 1 | BRS  | L1  | 0    | (global near2 marking) and<br>"garbage collection" and<br>space-incremental-collection | US-<br>PGPUB<br>;<br>USPAT;<br>EPO;<br>JPO;<br>DERWE<br>NT;<br>IBM_TD<br>B | 2006/09/11<br>18:09 |
| 2 | BRS  | L2  | 3    | (global near2 marking) and<br>"garbage collection"                                     | US-<br>PGPUB<br>;<br>USPAT;<br>EPO;<br>JPO;<br>DERWE<br>NT;<br>IBM_TD<br>B | 2006/09/11<br>18:17 |
| 3 | BRS  | L3  | 2    | "6343376".pn.  | US-<br>PGPUB<br>;<br>USPAT;<br>EPO;<br>JPO;<br>DERWE<br>NT;<br>IBM_TD<br>B | 2006/09/11<br>18:24 |

|   | Type | L # | Hits | Search Text                       | DBs  | Time Stamp          |
|---|------|-----|------|-----------------------------------|--|---------------------|
| 4 | BRS  | L4  | 2    | "6826583".pn.                     | US-<br>PGPUB<br>;<br>USPAT;<br>EPO;<br>JPO;<br>DERWE<br>NT;<br>IBM_TD<br>B | 2006/09/11<br>21:14 |
| 5 | BRS  | L5  | 4    | "6185581".pn. or<br>"6393439".pn. | US-<br>PGPUB<br>;<br>USPAT;<br>EPO;<br>JPO;<br>DERWE<br>NT;<br>IBM_TD<br>B | 2006/09/11<br>21:14 |

[Sign in](#)[Web](#) [Images](#) [Video](#) <sup>New!</sup> [News](#) [Maps](#) [more »](#)

global marking and space-incremental collecti

[Search](#)[Advanced Search](#)  
[Preferences](#)The "AND" operator is unnecessary -- we include all search terms by default. [\[details\]](#)**Web**Results 1 - 10 of about 20 for **global marking and space-incremental collection**. (0.37 seconds)Did you mean: global **marketing** and space-incremental collectionCitations: Real-time garbage **collection** on general-purpose ...Therefore, at the end of a **marking** phase, the relocated objects of the previous **collection** can be freed. Arraylets. Large arrays are . ...citeseer.ist.psu.edu/context/37069/0 - 35k - [Cached](#) - [Similar pages](#)Citations: A concurrent generational garbage collector for a ...RELATED WORK Incremental concurrent **mark** sweep collectors have been widely ... access to immutable objects in from **space**. **Incremental** schemes have also been ...citeseer.ist.psu.edu/context/507294/8061 - 44k - [Cached](#) - [Similar pages](#)[\[ More results from citeseer.ist.psu.edu \]](#)[\[PDF\] Java performance](#)File Format: PDF/Adobe Acrobat - [View as HTML](#)a **collection**. This takes time and space and may be unacceptable in memory-constrained embedded ... **mark-sweep**, reference counting, two-**space**, **incremental**, ...www.csd.uoc.gr/~hy252/project\_old/performance.pdf - [Similar pages](#)[\[PDF\] J2EE Technology Performance Tuning Guide](#)File Format: PDF/Adobe Acrobat - [View as HTML](#)the heap **space**. **Incremental** garbage **collection** reduces this amount of ... The highwater **mark** is the critical number from a performance standpoint. ...www.ibm.com/support/docs/e2a/asp/6.0/j2ee/performance/performance.pdf - [Similar pages](#)[\[PDF\] BUILDING ON EXCELLENCE](#)

File Format: PDF/Adobe Acrobat

How do we know if we are hitting the **mark** in doing good and pursuing ... **global** change studies and ecological forecasting, building on the current strengths ...www.planning.duke.edu/univupdate11.pdf - [Similar pages](#)System and method of image generation and encoding using primitive ...and wherein the step d) of removing comprises **marking** as unused the n-th location in ... In this technique image-**space incremental** integer operations are ...www.freepatentsonline.com/6057847.html - 491k - [Cached](#) - [Similar pages](#)System and method of image generation and encoding using primitive ...In this method the **global** visibility array is first zeroed and then all exposed ... In this technique image-**space incremental** integer operations are ...www.freepatentsonline.com/6111582.html - 491k - [Cached](#) - [Similar pages](#)[\[PDF\] DB2 UDB V8.2 on the he Windows Environment vironment](#)

File Format: PDF/Adobe Acrobat

With automatic statistics **collection** enabled, DB2 automatically runs the ... for re-creating invalid indexes on the primary database, which would **mark** ...www.redbooks.ibm.com/redbooks/pdfs/sg247102.pdf - [Similar pages](#)[\[PDF\] Advanced Techniques for Efficient Data Integrity Checking](#)

File Format: PDF/Adobe Acrobat

Databases, however, usually contain very large **collections** of data that ... **mark**, as part of the Federated Logic Conference (FLoC), volume 95 of Datalogiske ...  
[www.ruc.dk/dat/forskning/skrifter/DS105.pdf](http://www.ruc.dk/dat/forskning/skrifter/DS105.pdf) - [Similar pages](#)

[PDF] [Session # 706 Technology for the Small Office: Coping with a ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

any **collection** of documents and matter-specific information. That ... customers to do an awful lot of their own research with the check images," said **Mark** ...  
[downloads.ohiobar.org/conventions/convention2005/Session%20706%20Technology%20for%20the%20Small%20Office.pdf](http://downloads.ohiobar.org/conventions/convention2005/Session%20706%20Technology%20for%20the%20Small%20Office.pdf) - [Similar pages](#)

Did you mean to search for: [global \*\*marketing\*\* and space-incremental collection](#)

Google ►

Result Page: 1 2 [Next](#)

Free! Speed up the web. [Download the Google Web Accelerator.](#)

---

[Search within results](#) | [Language Tools](#) | [Search Tips](#) | [Dissatisfied? Help us improve](#)

---

[Google Home](#) - [Advertising Programs](#) - [Business Solutions](#) - [About Google](#)

©2006 Google

Java | Solaris | Communities | Partners | My Sun | Sun Store

United States | Worldwide

Products | Downloads | Services & Solutions | Support | Training | Research

Home > Research >

## Research Home

- » Spotlight Articles
- » Projects
- » Publications
- » People
- » Awards
- » Events
- » Downloads
- » Internships
- » Contrarian Minds
- » About Sun Labs

## Publications and Talks - Dave Detlefs

**david.detlefs@east.sun.com**

Here is a list of the publications that I have authored or co-authored. They are ordered by date, with most recent first. Selected Talks are listed below.

### Publications

1. **Compile-Time Concurrent Marking Write Barrier Removal**  
V. Krishna Nandivada and David Detlefs  
*To Appear In* 2005 International Symposium on Code Generation and Optimization (CGO), March, 2005. (PDF)
2. **Garbage-First Garbage Collection.**  
David Detlefs, Christine Flood, Steven Heller, and Tony Printezis.  
Proceedings of The 2004 International Symposium on Memory Management. (PDF)
3. **DCAS is not a Silver Bullet for Nonblocking Algorithm Design.**  
Simon Doherty, David L. Detlefs, Lindsay Groves, Christine H. Flood, Victor Luchangco, Paul A. Martin, Mark Moir, Nir Shavit, and Guy L. Steele, Jr.  
Proceedings of the Sixteenth ACM Symposium on Parallelism in Algorithms and Architectures, June, 2004. (PDF)
4. **A Hard Look at Hard Real-Time Garbage Collection.**  
David Detlefs.  
Seventh IEEE International Symposium on Object-Oriented Real-Time Distributed Computing (ISORC'04). (PDF)
5. **Simplify: A Theorem Prover for Program Checking.**  
David L. Detlefs, Greg Nelson, and James B. Saxe.  
HP Labs Technical Report HPL-2003-148. (Postscript, PDF)
6. **Concurrent Remembered Set Refinement in Generational Garbage Collection**  
David Detlefs, Ross Knippel, William D. Clinger, Matthias Jacob.  
In proceedings of 2002 USENIX Java VM Research and Technology Symposium. (PDF, postscript, html)
7. **Lock-Free Reference Counting**  
David L. Detlefs, Paul A. Martin, Mark Moir, Guy L. Steele Jr.  
In proceedings of PODC 2001.  
(postscript)  
Journal version: Distributed Computing 15(4).
8. **Even Better DCAS-Based Concurrent Deques**  
David L. Detlefs, Christine H. Flood, Alexander T. Garthwaite, Paul A. Martin, Nir N. Shavit, and Guy L. Steele Jr.  
In proceedings of DISC2000 (LNCS, Springer-Verlag).  
(postscript)
9. **Parallel Garbage Collection for Shared Memory Multiprocessors**  
Christine Flood, Dave Detlefs, Nir Shavit, Catherine Zhang.

In 2001 USENIX Java Virtual Machine Research and Technology Symposium.  
(PDF, postscript)

10. **A Generational Mostly-Concurrent Garbage Collector.**  
 Dave Detlefs and Tony Printezis.  
 Sun Labs TR-2000-88 (PDF, postscript)  
 Shorter version appeared in ISMM2000: ( PDF, postscript)
  
11. **DCAS-Based Concurrent Deques.**  
 Ole Agesen, David L. Detlefs, Christine H. Flood, Alexander T. Garthwaite, Paul A. Martin, Nir N. Shavit, and Guy L. Steele Jr.  
 In SPAA 2000.  
 (postscript).  
  
 Journal version in Theory of Computing Systems, 35:(3).
  
12. **The Case for Multiple Compilers.**  
 David Detlefs and Ole Agesen.  
 OOPSLA '99 VM Workshop: Simplicity, Performance and Portability in Virtual Machine Design.  
 Extended Abstract. (PDF, postscript)
  
13. **An Efficient Meta-lock for Implementing Ubiquitous Synchronization**  
 Ole Agesen, David Detlefs, Alex Garthwaite, Ross Knippel, Y.S. Ramakrishna, Derek White.  
 October, 1999.  
 (Sun Labs TR-99-76, OOPSLA '99 PDF, postscript)
  
14. **Inlining of Virtual Methods.**  
 David L. Detlefs and Ole Agesen.  
 In *Proceedings of the Thirteenth European Conference on Object-Oriented Programming*, Lisbon, Portugal, June, 1999  
 (Postscript, PDF).
  
15. **Garbage Collection and Local Variable Type Precision in Java (TM) Virtual Machines.**  
 Ole Agesen, David L. Detlefs, and J. Eliot B. Moss.  
 In *Proceedings of the ACM SIGPLAN '98 Conference on Programming Language Design and Implementation*, p. 269-279, ACM SIGSOFT, June, 1998.  
 (Postscript) .
  
16. **Finding References in Java<sup>TM</sup> Stacks.**  
 Ole Agesen and David Detlefs.  
 OOPSLA97 Workshop on Garbage Collection and Memory Management, 10/97, Atlanta, GA.  
 (postscript)
  
17. **Extended Static Checking.**  
 David L. Detlefs, K. Rustan M. Leino, Greg Nelson, and James B. Saxe.  
 SRC Research Report 159. (Postscript, PDF)
  
18. **Wrestling with Rep Exposure.**  
 David L. Detlefs, K. Rustan M. Leino, and Greg Nelson.  
 SRC Research Report 156. (Postscript, PDF)
  
19. **An Overview of the Extended Static Checking System.**  
 David L. Detlefs  
 In *Proceedings of The First Workshop on Formal Methods in Software Practice*, p. 1-9, ACM SIGSOFT, January, 1996.  
 (Postscript) .

20. **Debugging Storage Management Problems in Garbage-Collected Environments.**  
 David L. Detlefs and Bill Kalsow.  
 In *USENIX Conference on Object-Oriented Technologies* Conference Proceedings, Monterey, CA, June 26-29, 1994, pages 69-82.  
 (Postscript).
21. **Memory Allocation Costs in Large C and C++ Programs.**  
 David L. Detlefs, Al Dosser, and Ben Zorn.  
*Software Practice and Experience*, 24(6):527-542, June 1994. Also available as University of Colorado at Boulder Tech Report CU-CS-665-92.  
 (Postscript)
22. **Empirical Evidence for using Garbage Collection in C and C++ Programs.**  
 David L. Detlefs, Al Dosser, and Benjamin Zorn.  
 In *Proceedings of 1993 ACM OOPSLA Workshop on Garbage Collection*, September, 1993.  
 (Postscript).
23. **Safe, Efficient Garbage Collection for C++.**  
 John R. Ellis and David L. Detlefs.  
 Research Report 102, Digital Equipment Corporation Systems Research Center, Palo Alto, CA, June 1993.  
 (Postscript).
24. **Garbage Collection and Run-time Typing as a C++ Library.**  
 David L. Detlefs.  
 In *Proceedings of the 1992 USENIX C++ Conference*, August 1992, pages 37-56.  
 (Postscript).
25. **Concurrent, Atomic, Garbage Collection.**  
 David L. Detlefs.  
 Ph.D. Thesis; available as Carnegie Mellon School of Computer Science Technical Report CMU-CS-90-177, October 1990.  
 (Postscript).
26. **Concurrent Garbage Collection for C++.**  
 David L. Detlefs.  
 Carnegie Mellon School of Computer Science Technical Report CMU-CS-90-119, May 1990.  
 (Postscript).
27. **Inheritance of synchronization and recovery properties in Avalon/C++.**  
 David Detlefs, Maurice Herlihy, and Jeannette Wing.  
*IEEE Computer*, 21(12), December, 1988.
28. **The Avalon/C++ Programming Language (Version 0).**  
 Maurice Herlihy, Jeannette Wing, David Detlefs, Stewart Clamen, Karen Keitzke, Richard Lerner, and Su-Yuen Ling.  
 Carnegie Mellon School of Computer Science Technical Report CMU-CS-88-209, December, 1988.
29. **Avalon/C++: C++ Extensions for Transaction-based Programming. In The Proceedings of the 1987 USENIX C++ Workshop**  
 David Detlefs, Maurice Herlihy, Jeannette Wing and Karen Kietzke.  
 November 1987, pages 451-459.
30. **A Procedure for Automatically Proving the Termination of a Set of Rewrite Rules.**  
 David Detlefs and Randy Forgaard.  
 In *The Proceedings of the First International Conference on Rewriting Techniques and Applications*, May, 1985, University of Dijon, France.

## External Talks

1. Talk in November 2002 at Fidelity Investments in Boston on **Parallelism and Concurrency in Garbage Collection (version 3)**.
2. Talk in July 2002 at USENIX JVM in San Francisco on **Concurrent Remembered Set Refinement in Generational Garbage Collection**.
3. Talk in May 2002 at SAP Labs in Palo Alto on **Parallelism and Concurrency in Garbage Collection (version 2)**.
4. Talk in April 2002 at Williams College on **Parallelism and Concurrency in Garbage Collection (version 1)**.
5. Talk in March 2000 at Brown University on the **JTech Group's Work on Scalable Old-Gen GC**.
6. Talk in October 1998 at Rice University on work in **Inlining of Virtual Methods**. (tar file)
7. Talk in July 1998 at University of Colorado on work in **JIT optimizations**. (tar file)
8. Presented paper on **An Overview of the Extended Static Checking System** at the First Workshop on Formal Methods in Software Practice, co-located with ISSTA 96, in San Diego, CA, January, 1996.
9. Presented paper on **Debugging Storage Management Problems in Garbage-Collected Heaps** at the USENIX Conference on Object-Oriented Technologies, in Monterey, CA on June 28, 1995. (Also extra figures.)
10. Talk on **Extended Static Checking**. (The talk references two sets of slides showing examples: *Sequence* and *Pivot*.) I gave this talk at CMU, MIT, and Digital's Spitbrook facility (ZKO) in February of 1995.
11. **Empirical Evidence for using Garbage Collection in C and C++ Programs**. Presented talks based on this paper at the 1993 SRC Review and at the 1993 ACM OOPSLA Workshop on Garbage Collection, September, 1993, Washington, DC.
12. **Garbage Collection and Run-time Typing as a C++ Library**. Presented at the 1992 USENIX C++ Conference, August 1992, Portland, OR.
13. **Concurrent, Atomic, Garbage Collection**. Presented short talk at 1990 ACM OOPSLA Workshop on Garbage Collection, October, 1990, Ottawa, CA.
14. **Avalon/C++: C++ Extensions for Transaction-based Programming**. Presented at the 1987 USENIX C++ Workshop, November, 1987, Sante Fe, NM.
15. **A Procedure for Automatically Proving the Termination of a Set of Rewrite Rules**. Presented at the First International Conference on Rewriting Techniques and Applications, May, 1985, University of Dijon, France.

Would you recommend this Sun site to a friend or colleague?

Select Rating --> 

